Applicant: Georg Wittmann et al. Attorney's Docket No.: 12406-103US1 / P2004,0390

US N

Serial No.: Unassigned Filed : Herewith

Page : 3 of 7

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

- 1. (Original) Material for forming a thin film whose conductivity can be set in the range of 10<sup>-4</sup> S/cm to 10<sup>-6</sup> S/cm and whose thickness is between 10 and 300 nm, with the material comprising a mixture of at least two different fractions of a functional polymer, namely a first fraction that is based on a dispersion of the functional polymer in a first solvent in which the functional polymer is at least partly dispersed, and a second fraction of functional polymer that is based on a true solution of the functional polymer in a second solvent, with the two fractions being processed, dispersed, and/or dissolved together, with the ability to set the conductivity of the thin film composed of this material by the ratio in which the at least two fractions are mixed.
- 2. (Currently Amended) Material pursuant to of claim 1 that contains an additional third solvent.
- 3. (Currently Amended) Material pursuant to one of the claims 1 or 2 of claim 1 that is essentially free of the first and/or second solvent and/or dispersing agent of the underlying fractions.
- 4. (Currently Amended) Material pursuant to one of the preceding claims in which of claim 1 wherein the functional polymer comprises PEDOT or PANI.
- 5. (Currently Amended) Material pursuant to one of the preceding claims in which of <u>claim 1 wherein</u> the functional polymer is present as a copolymer or blend that includes PSS.

Applicant: Georg Wittmann et al. Attorney's Docket No.: 12406-103US1 / P2004,0390

US N

Serial No.: Unassigned Filed: Herewith Page: 4 of 7

6. (Currently Amended) Material pursuant to one of the preceding claims in which of claim 1 wherein the first solvent includes water or another component with high polarity in which the functional polymer is essentially insoluble.

- 7. (Currently Amended) Material pursuant to one of the preceding claims in which of claim 1 wherein the second solvent is ethanol or another low-boiling polar solvent, preferably a polar protic solvent that can develop hydrogen bridge bonds.
- 8. (Currently Amended) Material pursuant to one of the preceding claims in which of claim 2 wherein the third solvent is different from the first and/or second solvent.
- 9. (Currently Amended) Material pursuant to one of the preceding claims in which of claim 1 wherein ethylene glycol or another alcohol is used as a third solvent, especially including mixtures of several alcohols, and/or alcohols with a carbon content from C4 to C10, branched and unbranched, and also polyfunctional alcohols or mixtures thereof, and mixtures with water, with special preference glycol and glycerol.
- 10. (Currently Amended) Method for preparing a material for a functional layer with a conductivity in the range of 10<sup>-4</sup> S/cm to 10<sup>-6</sup> S/cm and a maximum thickness of 100 nm [sic], in which a mixture consisting of two different fractions of a functional polymer is combined, in a solvent as the case may be.
- 11. (Currently Amended) Method pursuant to of claim 10 in which wherein a third, high-boiling solvent is added to a dispersion of the functional polymer as the first fraction and a solution of the functional polymer as the second fraction, and the lower-boiling solvents are then removed by distillation so that ultimately the different fractions of functional polymer without their own solvent essentially constitute the material in the third, high-boiling solvent.

Applicant: Georg Wittmann et al. Attorney's Docket No.: 12406-103US1 / P2004,0390

US N

Serial No.: Unassigned Filed: Herewith

Page : 5 of 7

12. (Currently Amended) Method pursuant to one of the claims 10 or 11 in which of claim 10 wherein the high-boiling solvent is added in the same amount as that of each fraction that is present.

- 13. (Currently Amended) Preparation of a thin film for an OLED with conductivity that can be preset, consisting of a material pursuant to one of the claims 1 to 9 of claim 1, with one of the following techniques being used: spin coating, screen printing, offset printing, flexo printing, spray coating, roller coating, ink jet printing, stencil printing, or blade coating.
- 14. (Currently Amended) Use of A method comprising using the material pursuant to one of the claims 1 to 9 of claim 1 in OLEDs.
- 15. (New) Material of claim 2 that is essentially free of the first and/or second solvent and/or dispersing agent of the underlying fractions.
- 16. (New) Material of claim 8 wherein the first solvent includes water or another component with high polarity in which the functional polymer is essentially insoluble.
- 17. (New) Material of claim 8 wherein the second solvent is ethanol or another low-boiling polar solvent, preferably a polar protic solvent that can develop hydrogen bridge bonds.
- 18. (New) Material of claim 8 wherein ethylene glycol or another alcohol is used as the third solvent, especially including mixtures of several alcohols, and/or alcohols with a carbon content from C4 to C10, branched and unbranched, and also polyfunctional alcohols or mixtures thereof, and mixtures with water, with special preference glycol and glycerol.
- 19. (New) Material of claim 18 wherein the first solvent includes water or another component with high polarity in which the functional polymer is essentially insoluble, and the

Applicant: Georg Wittmann et al. Attorney's Docket No.: 12406-103US1 / P2004,0390

Serial No.: Unassigned Filed: Herewith Page: 6 of 7

US N

second solvent is ethanol or another low-boiling polar solvent, preferably a polar protic solvent that can develop hydrogen bridge bonds.

20. (New) Method of claim 11 wherein the high-boiling solvent is added in the same amount as that of each fraction that is present.